

IN THE CLAIMS:

Please amend the claims as follows:

Claims 1 to 24 (Cancelled)

25. (Currently Amended) A method of operating a file system, said file system including an active map of information indicating in-use and free blocks, said file system maintaining a set of snapshots, each snapshot including a representation of said file system as it was at an earlier time, said method including

computing a summary map in response to a logical union of at least two copies of earlier active maps included in at least two of said snapshots.

26. (Original) A method as in claim 25, including
making write allocation decisions in response to said summary map.

27. (Currently Amended) A method as in claim 25, wherein
said summary map is computed using an inclusive OR operation ~~a result of said computing~~
~~includes an indicator of a union of all blocks indicated by at least two said copies of earlier active~~
~~maps included in said set of snapshots.~~

28. (Original) A method as in claim 25, wherein
said set of snapshots includes at least two said snapshots; and
said computing includes performing a bitwise logical operation on at least two said copies of
earlier active maps included in said set of snapshots.

29. (Original) A method as in claim 25, including
making write allocation decisions both in response to a current active map and in response to
said summary map.

30. (Original) A method as in claim 25, including
computing a combination of a current active map and said summary map; and
making write allocation decisions in response to a result of said computing.

31. (Original) A method as in claim 25, including, for a selected portion of said summary
map
identifying a set of snapshots created since a recent update of said selected portion; and
updating said selected portion in response to only a most recent one of said snapshots.

32. (Currently Amended) In a file system including an active map of information indicating
in-use and free blocks, said file system maintaining a set of snapshots, each snapshot including a
representation of said file system as it was at an earlier time, said file system maintaining a summary

map in response to at least one copy of an earlier active map included in at least one of said snapshots, a method of updating said summary map, said method including

receiving a request to delete a selected snapshot; and

deleting said selected snapshot, wherein said deleting involves, for a block used by said selected snapshot, indicating said block is free in said summary map only in response to a snapshot just prior to said selected snapshot and in response to a snapshot just after said selected snapshot.

33. (Original) A method as in claim 32, wherein said indicating frees said block only when both

said block is unused by said snapshot just prior to said selected snapshot; and

said block is unused by said snapshot just after said selected snapshot.

34. (Original) A method as in claim 32, wherein said snapshot just after said selected snapshot corresponds to an active file system.

35. (Currently Amended) In a file system including an active map of information indicating in-use and free blocks, said file system maintaining a set of snapshots, each snapshot including a representation of said file system as it was at an earlier time, said file system maintaining a summary map computed in response to a logical union of at least two copies ~~one copy~~ of an earlier active map included in at least two ~~one~~ of said snapshots, a method of updating said summary map, said method including

selecting a set of blocks maintained by said file system for which to perform a write allocation operation;

updating only a portion of said summary map corresponding to said set of blocks, in response to said selecting; and

performing said write allocation operation in response to said updated summary map.

36. (Original) In a file system including an active map of information indicating in-use and free blocks, and said file system maintaining a set of snapshots, each snapshot including a representation of said file system as it was at an earlier time, said file system maintaining a summary map in response to at least one copy of an earlier active map included in at least one of said snapshots, a method of updating said summary map, said method including

while generating a consistency point, selecting a set of blocks maintained by said file system and updating only a portion of said summary map corresponding to said set of blocks.

Claims 37 to 39 (Cancelled)

40. (New) A file system as in claim 35, wherein

said summary map is computed using an inclusive OR operation.